
10552R (March 2002)

Superseding

STAR-10552R (June 2001)

RST-10552 (08/00)

GUIDE SPECIFICATION FOR CONSTRUCTION

Specification revised to meet U.S. Army Reserve requirements (June 2001)

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03/02

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SECTION 10552R

METAL STORAGE SHELVING

03/02

NOTE: This guide specification covers the requirements for metal storage shelving that is located within cages of the unit storage area. This guide specification is to be used in the preparation of project specifications. Contact the Louisville District with revisions that are needed to this specification.

RST-10552 is a Louisville District Army Reserve Support Team (RST) guide specification.

PART 1 GENERAL

1.1 REFERENCES

NOTE: Issue (date) of references included in project specifications need not be more current than provided by the latest change (Notice) to this guide specification.

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI)

ANSI MH28.1

(1982) Design, Testing, Utilization, and Application of Industrial Grade Steel Shelving

1.2 SUBMITTALS

NOTE: Submittals must be limited to those necessary for adequate quality control. The importance of an item in the project should be one of the primary factors in determining if a submittal for the item should be required.

Indicate submittal classification in the blank space following the name of the item requiring the submittal by using "G" when the submittal requires Government approval. Submittals not classified as "G" will show on the submittal register as "Information Only". For submittals requiring Government approval, a code of up to three characters should be used following the "G" designation to indicate the approving authority; codes of "RE" for Resident Engineer approval, "ED" for Engineering approval, and "AE" for Architect-Engineer approval are recommended.

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

SD-02 Shop Drawings

Shop Drawings; FIO

Submit shop drawings showing location, ranges and extent of metal shelving systems. Show installation details at any special or non-standard conditions.

Initial Selection Purposes: Submit manufacturer's standard size samples of colors and finishes.

Verification Purposes: Submit 6" square samples of each color and finish required. Prepare from same material to be used for the work.

SD-03 Product Data

NOTE: Vendor information that forms part of this guide specification is permissible to use as long as the salient features provide for "or equal" product equivalents are specified. Submittal clauses must be modified to make known that specific vendor information is being specified. If the Contractor chooses to provide the specified vendor's product, the submittal for that item is considered a For Information Only submittal. If the Contractor uses a different "or equal" item, then it will be evaluated against the salient features. Hence, it is considered for Government Approval (G).

Acceptable Manufacturer Products; FIO

Manufacturers products listed in this specification are referenced to establish a standard of quality. When the specific product listed is submitted by the Contractor, that submittal will be considered For Information Only. When an equal to that named in this specification is submitted, it shall be for Government Approval (G). The following manufacturer products are specifically mentioned in this specification:

Shelving: Penco Products Inc.; FIO
99 Brower Avenue
P. O. Box 378
Oaks, PA 19456-0378
800.562.1000
www.pencoproducts.com

Shelving: Republic Storage Systems Co., Inc.; FIO
1038 Beldon Avenue, NE
Canton, OH 44705
800.477.1255
www.republicstorage

Shelving: Manuf. Product submitted as an "or equal"; G [____].

SD-04 Samples

Metal Shelving; FIO

Manufacturer's standard color samples of specified finishes.

1.3 QUALITY ASSURANCE

1.3.1 Manufacturer Qualifications

Firm (material producer) with not less than 3 years of production experience, whose published literature clearly indicates general compliance of products with requirements of this section.

1.3.2 Installer Qualifications

Firm specializing in metal storage shelving installation with not less than 2 years of experience in installation of metal storage shelving similar to that required for this project.

1.3.3 Single Source Responsibility

Provide material produced by a single manufacturer for each shelving unit type.

1.4 DELIVERY, STORAGE AND HANDLING

Comply with instructions and recommendations of manufacturer for special delivery, storage, and handling requirements.

1.5 WARRANTY

Special Project Warranty: Submit a written warranty, executed by the Contractor, Installer and the Manufacturer, agreeing to repair or replace shelving units which fail in materials or workmanship within the specified warranty period. This warranty shall be in addition to and not a limitation of other rights the Government may have against the Contractor under the Contract Documents.

Warranty period is 2 years after the date of Substantial Completion.

1.6 MAINTENANCE

1.6.1 Maintenance Instructions

Submit manufacturer's printed instructions for maintenance of installed work, including methods and frequency recommended for maintaining optimum condition under anticipated use conditions. Include precautions against materials and methods which may be detrimental to finishes and performance.

1.6.2 Replacement Materials

After completion of work, deliver not less than 2 of each type, color, and pattern of metal storage shelving, exclusive of material required to properly complete installation. Furnish 2% of accessory components as scheduled. Furnish replacement materials from same production run as materials installed. Package replacement materials with protective covering, identified with appropriate labels.

PART 2 PRODUCTS

2.1 MATERIALS

NOTE: Designer shall determine if seismic considerations are needed and add to requirements.

2.1.1 General

Minimum 20 gauge cold-rolled steel sheet metal, washed to receive powder coated baked enamel finish, higher gauge where indicated to provide appropriate loading capacity. Shelving shall meet the requirements of ANSI MH28.1.

2.1.2 Open Shelving

Provide heavy-duty open shelving units consisting of four upright corner pilasters, slotted to receive clips clipped together with shelves as indicated. Provide cross-braces laterally and at ends as required for stability with intended load. Shelves adjustable 38.1mm 1-1/2" on center. Provide 1200 48" wide by 2175 87" high units, unless otherwise indicated on

drawings or in specifications.

Provide number of shelves as indicated of standard 600mm 24" depth.

2.1.3 Lateral Cross Braces

Minimum 12 gauge, 25mm 1" wide steel band, formed and punched at each end, capable of bolting to T sections. provide one pair of cross braces for every three sections of under 760mm 30".

2.1.4 Crosswise Dividers

Minimum 24 gauge steel for shelves up to 450mm 18" high and 600mm 24" deep, minimum 20 gauge steel for shelves over 450mm 18" high and 600mm 24" deep, punched for attaching to shelves.

2.1.5 Lengthwise Dividers

Steel gauge as required by shelf spacing.

2.1.6 Bases

Channel-shaped to engage upright T sections with spring fasteners, minimum 20 gauge for 75mm 3" base, minimum 18 gauge for 150mm 6" base.

2.2 FINISHES

Provide units in finishes and colors as selected by the Contracting Officer from manufacturer's standard finishes and colors.

PART 3 EXECUTION

3.1 INSPECTION

Inspect areas and conditions in which metal storage shelving will be installed. Verify locations of power feeds, positioning of exits and aisle ways and overall dimensions of space, including height and HVAC venting.

3.2 PREPARATION

Prior to installation of shelving system, vacuum floor surface to remove dust, debris and loose particles. Resilient flooring wet mopped and dried or finish buffed. Verify that components, including size and finish are those specified before installing.

3.3 INSTALLATION

Install shelving system and accessories after finishing operations, including painting have been completed. Install system to comply with final layout drawings, in strict compliance with manufacturers printed instructions. Position units level, plumb; at proper location relative to adjoining units and related work. Adjust accessories to provide visually acceptable installation.

3.4 FIELD QUALITY CONTROL

Remove and replace shelving components which are chipped, scratched, or otherwise damaged and which do not match adjoining work. Provide new matching units, installed as specified and in manner to eliminate evidence of replacement.

3.5 ADJUST

Adjust components and accessories to provide visually acceptable installation.

3.6 CLEANING

Immediately upon completion of installation, clean components and surfaces following manufacturer's recommended procedures.

Remove surplus materials, rubbish and debris resulting from installation upon completion of work and leave areas of installation in neat, clean condition.

3.7 DEMONSTRATION

Upon completion of installation of system, inspect and determine capability and compliance with requirements. Repair or replace units which are not functional. All shelves and/or accessories shall be smoothly in place with no visual buckling or non-alignment of parts evident.

3.8 PROTECTION

Protect system against damage during remainder of construction period. Advise owner of additional protection needed to ensure that system will be without damage or deterioration at time of Substantial Completion.

---END OF SECTION---